

Football Statistics



In 2004 Cory Bradford was a receiver for the Texans. He received the ball in 12 out of the 16 games played by the team. The total yards received during each of the first 10 games are shown below.

24 9 52 32 5 52 27 13 65 38

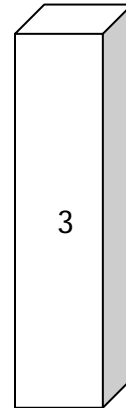
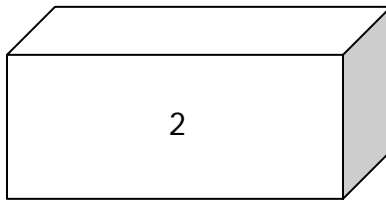
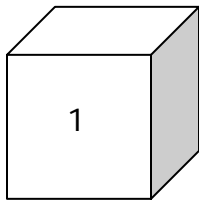
If Cory Bradford's mean, median and mode for receptions during the first 7 games were 31, 24, and 52 (when rounded to the nearest whole number), which of the above yardages represents his stats?

1. Use the spreadsheet document to help you find the yards received by Cory Bradford during the first 7 games. Follow the instructions on the spreadsheet given in each of the colored boxes.
2. If the yards from the other 3 games were included in the data set, how would you predict
 - a. the mean would change?
 - b. the median would change?
 - c. the mode would change?
3. Use the spreadsheet to calculate the mean, median, and mode for all 10 games. Set up a table beside or below the existing information.
4. How close were your predictions to the actual mean, median and mode? Explain similarities and differences.
5. Print the file when finished. Be sure to ask your teacher for any special directions before printing.

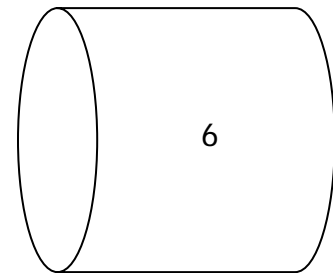
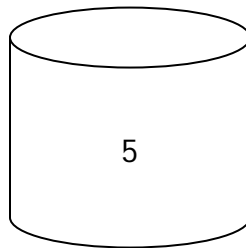
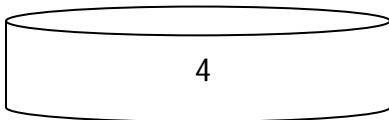
How Do These Shapes Measure Up?

1. Look at each set of figures below. Make a prediction about the mean, median, and mode for the heights of each set. For which set of data do you predict the mean, median and mode to be the same? Which set do you predict to have the greatest mean? Which set do you predict to have the smallest mean?

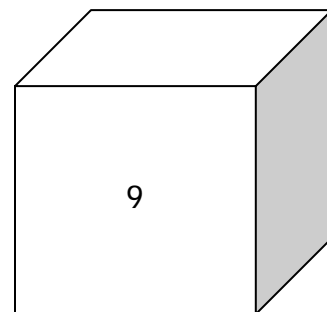
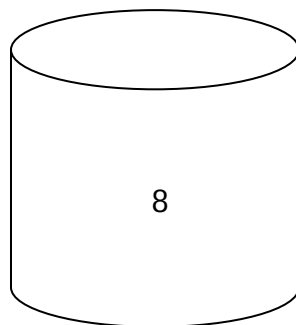
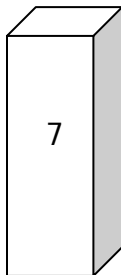
Set A



Set B



Set C



2. Measure the height of each figure. Round measurements to the nearest $\frac{1}{4}$ inch.
3. Use the spreadsheet document to
 - a. organize data.
 - b. find the mean, median and mode using formulas for the heights of each set.
 - c. chart the mean, median and mode for the heights of each set.
4. Use the information to answer the following questions.
 - d. Which set of figures has the same mean, median and mode?
 - e. Which set has no mode?
 - f. Which set has the same median and mode?
 - g. Which data set has the greatest mean?
 - h. Which data set has the smallest mean?
 - i. How can looking at the figures help you determine the central tendencies?
 - j. How would combining the data sets affect the mean? The median? The mode?
 - mean –
 - median –
 - mode –
5. How different do you think the data sets would be if you measured the lengths or diameters of the figures? What would be similar? What would be different? Explain your reasoning.
6. Create a new table to the side of the current spreadsheet in order to find the mean, median, and mode of the lengths or diameters for each set of figures. Be sure to round measurements to the nearest $\frac{1}{4}$ inch. Chart the data.

7. Print the file when finished. Be sure to ask your teacher for any special directions before printing.

Data Mix-Up

Mr. Tucker gave his students the following data from the 2004 football season.

The Houston Texans played 16 games in 2004. The numbers in the table represent the total passing yards by David Carr, the quarterback, for each game.

229	215
313	164
233	201
228	157
372	167
266	220
276	139
245	114

Each student had to create a data set of passing yards for the losing games and a data set of passing yards for the winning games using the clues provided.

- Clue 1: The Texans had 2 fewer wins in 2004 than losses.
- Clue 2: The mean passing yards for the losing data set is less than the mean passing yards for the winning data set.
- Clue 3: All of the passing yard totals for the winning games are in the same hundreds group except for 1.
- Clue 4: The range for the passing yards of the losing games is 258 and of the winning games is in the one hundred range.
- Clue 5: The smallest value in both data sets is in the one hundred range.

The data sets for 2 students are shown below.

Marissa	
Losses	Wins
313	372
276	266
245	233
229	228
215	220
167	201
164	114
157	
139	

Sheldon	
Losses	Wins
372	276
313	266
245	233
229	228
215	220
167	201
164	139
157	
114	

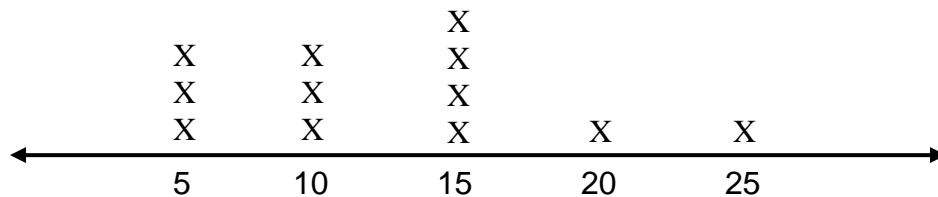
Use the clues and a spreadsheet to make your own data set. Find the mean, median and mode using formulas for each of your data sets. Compare your results to the given student results to decide which student is correct. Justify your reasoning.

1. The table shows the number of points Menu scored during the first 5 basketball games.

Game	Points Scored
1	15
2	11
3	18
4	12
5	29

If Menu wants to predict how many points he will score during the next game, which measure of the data should he use?

- A Mean
 - B Median
 - C Mode
 - D Range
2. Mai charges \$5 per hour for babysitting. She decided to chart the amount she earned on different evenings spent babysitting during the past month.



What was the median amount she earned during the month?

- A \$10
- B \$12.50
- C \$14
- D \$15

3. In his first three hours of waiting tables, Kimiko received the following tip amounts.

\$2 \$1.50 \$2 \$3.25 \$5 \$2.25 \$12

If Kimiko wants to ask for a raise by showing his tips are not very good, which measure of central tendency should he show his boss?

- A Mean
- B Median
- C Mode
- D Range

4. To participate in an activity at the Fall Festival or purchase food items, tickets must be purchased. Below is a table that describes some booths and food items at the Fall Festival and the number of tickets needed for that booth.

Activity or Food Item	Number of Tickets
Cake Walk	3
Fishing	2
Moon Walk	4
Pony Ride	6
Ring Toss	2
Rock Climbing	7
Chips	3
Drinks	3
Hot Dogs	5
Nachos	5

If a petting zoo is added to the list above, how many tickets should the Festival organizers assigned to the petting zoo for the mean to stay the same?

- A 3
- B 3.5
- C 4
- D 5